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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,385	09/18/2006	Tetsuo Korenaga	NGB-41176	8879
53054 7590 05/24/2010 PEARNE & GORDON LLP 1801 EAST 9TH STREET SUITE 1200 CLEVELAND, OH 44114-3108				
EXAMINER MOORE, KARLA A				
ART UNIT		PAPER NUMBER		
1716				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/593,385

Applicant(s)

KORENAGA ET AL.

Examiner

KARLA MOORE

Art Unit

1716

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2010.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1 and 3 is/are rejected.
7) ☒ Claim(s) 2 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 01 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/GS/US)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of U.S. Patent No. 5,823,416 to Haji in view of Japanese Patent No. 2000-212777 to Soma et al. and U.S. Patent No. 4,588,185 to Shoda et al.
4. Iwai et al. disclose a plasma treatment apparatus capable of plasma treating a surface of a substrate in a treatment chamber (i.e. sealed space forming treatment area A) substantially as claimed and comprising: a base portion (12) which forms a bottom portion of the treatment chamber; a box shaped member (13) with its lower surface side

open and a lower end portion abuts against a base surface (at and around 39) on top of the base portion so as to form the treatment chamber; an electrode section (34) which is fitted on the base portion through an insulator (37) and whose upper surface is exposed in the treatment chamber; a substrate mounting portion (top surface of 34) which constitutes an upper portion of the electrode section; plasma generating means (61, 12d and 38) for generating plasma for plasma treatment in the treatment chamber; a plurality of bar-shaped ceramic guide members (18 and 40-41; column 7, rows 45-46) which are disposed on the upper surface of the substrate mounting portion along a substrate transporting direction and are adapted to guide side and end surfaces of the substrate mounted on the substrate mounting portion.

5. Haji discloses the plasma treatment apparatus substantially as claimed and as described above.
6. However, Haji fails to disclose an upper surface of the substrate mounting portion is covered with a ceramic.
7. Soma et al. teach that it is known in the art to provide a top surface of a substrate mounting portion of an electrode with a ceramic coating in order to prevent abnormal discharge due to application of high electric field.
8. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided at top surface of the substrate mounting portion of the electrode section in Haji comprising a ceramic coating in order to prevent abnormal discharge due to application of high electric field as taught by Soma et al.

9. Haji and Soma et al. disclose the plasma treatment apparatus substantially as claimed and as described above. In addition to what is described above, Haji disclose guide member holding means, wherein the interval between the guide members in the transverse direction is adjustable. The guide member holding means comprise screw holes/fixed members (12c) on the base portion and screws/supporting members (42) securing the guide members, wherein the supporting members are positioned in the substrate transporting direction by the fixed members. The guide member holding means are integral with the base portion.

10. However, Haji and Soma et al. fail to disclose a multi-structure guide holding means that is separate from the base.

11. Shoda et al. disclose a guide member holding means comprising a pair of fixed members (14) fixedly disposed on the base portion in a transverse direction being at a right angle to the substrate transporting direction; a plurality of supporting members (12) for supporting end portions of the guide members wherein the supporting members are positioned in the substrate transporting direction by the fixed members; and fitting means (15 and 17) for the purpose of adjusting the position of guide members (13) according to form, size, etc. of a substrate such as a rectangle, disc, etc.

12. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided guide holding means separate from a base and comprising a pair of fixed members, a plurality of supporting members and fitting means in Haji and Soma et al. in order to adjust the position of guide members

according to form, size, etc. of a substrate such as a rectangle, disc, etc. as taught by Shoda et al.

13. With respect to the above rejection, Applicant appears to have invoked 112, 6th paragraph with respect to the following limitations: plasma generating means and fitting means, where the plasma generating means has been interpreted as an evacuation apparatus, plasma gas supplying apparatus and a high frequency power supply unit, collectively, as described in the specification or means equivalent thereto; and wherein the fitting means has been interpreted as bolts and threaded holes, collectively or means equivalent thereto, as also described in the specification.

14. With respect to claim 3, Haji et al. teach providing supporting members having one or more positioning pins (i.e. screws) and each of the guide members has one or more positioning holes, and wherein the guide members are mounted on the supporting members by fitting the positioning pins in the positioning holes. See, e.g., Fig. 8.

Response to Arguments

15. Applicant's arguments with respect to claims 1 and 3 have been considered but are not persuasive and/or moot in view of the new ground(s) of rejection.

16. Applicant has argued that amended claim 1 is patentable over the rejection based on the relied upon references because the plurality of supporting members in Shoda et al. are not positioned in the substrate transporting direction by the fixed members, wherein the substrate transporting direction is a rotational direction.

Examiner is of the opinion that this argument fails for two reasons. First, in response to

applicant's arguments against the references individually, it is noted that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case Haji et al. disclose guide members and guide member holding means that are arranged in a substrate transporting direction. However, these structures are integral with a base plate rather than separate therefrom. Shoda et al. is primarily relied upon for its teachings of how to provide guide member holding means that are separate from the base plate. Therefore, it would have been obvious to one of ordinary skill in the art combining and integrating the teachings of Haji et al. and Shoda et al. to have provided supporting members based on those disclosed in Shoda et al. positioned in the substrate transporting direction by the fixed members based on the teachings of Haji et al. Second, even if one was relying on the teachings of Shoda et al. individually (although this is not the premise on which the rejection is based), it is noted that Shoda et al. discloses multiple substrate transporting directions. While it is true that the one of those directions is rotational, the substrate may also be transported in other directions, wherein one of those directions is defined by a reciprocating sliding motion along guide bar 21, such that Shoda et al. does actually disclose supporting members positioned in a substrate transporting direction (see, e.g., Figure 2 and the paragraph spanning column 3, row 67 through column 4, row 12, *in its entirety*).

Allowable Subject Matter

17. Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest a plasma treatment apparatus for plasma treating a surface of a substrate in a treatment chamber as set forth above and further wherein a plurality of groove portions are formed on an upper surface of the substrate mounting portion along the substrate transporting direction by cutting the substrate mounting surface, and a projecting portion of a projection dimension smaller than a depthwise dimension of the plurality of groove portions and a notched portion formed by notching a bottom of each of the guide members formed in a shape of a rectangular bar with a notching dimension larger than a widthwise dimension of the substrate are formed continuously in a longitudinal direction on the bottom of each of rectangular, bar-shaped guide members, a side end portion of the substrate mounted on the substrate mounting surface being guided by the notched portion in a state in which the guide member is placed on the substrate mounting surface by advancing the projecting portion into the grooved portion. Nor was any other art located that provided the missing teachings along with the requisite motivation for combination.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **KARLA MOORE** whose telephone number is (571)272-1440. The examiner can normally be reached on **Monday-Friday, 9:00 am-6:00 pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Karla Moore/
Primary Examiner, Art Unit 1716